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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,460	07/02/2003	Sakae Watanabe	35061-05500	3107

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EXAMINER

GUHARAY, KARABI

ART UNIT PAPER NUMBER

2879

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Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/612,460	<b>Applicant(s)</b> WATANABE ET AL.	
	<b>Examiner</b> Karabi Guharay	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 5 is/are rejected.
- 7) ☒ Claim(s) 3 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/14/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification***

The disclosure is objected to because of the following informalities:

- (1) On page 16, line 5 of paragraph [0027], "closeer" should be corrected to "closer".
- (2) On page 24, on line 7 of paragraph [0045], the word "elongates" should be deleted.
- (3) On page 26, on line 9 of paragraph [0049] the word "shape" should be deleted.

Appropriate corrections are required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites "at least the pair of magnets", however, claim 5 depends on claim 4, which recite first magnets and second magnets, so it is not clear which pair of magnets applicant is referring to.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. (US 6750602), and further in view of Tagami (US 2003/0173889).

The applied reference (US 6750602) has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 1, Hirota et al. disclose a projection type cathode ray tube device (see Fig 1) comprising a vacuum envelope (20 which includes a rectangular panel (1) portion having a phosphor screen (100) formed on an inner surface thereof, a neck portion housing an electron gun (6) which irradiates an electron beam inside thereof, a funnel portion for connecting the panel portion and one end of the neck portion and a stem portion (5) for sealing the other end of the neck portion, a deflection

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yoke (7) which makes the electron beam scan on the phosphor screen, and a convergence yoke (8), the neck portion includes a first neck portion which is arranged at the funnel portion side and has a first outer diameter, the second neck portion which is arranged closer to the stem portion side than the first neck portion and has a second outer diameter, and a third neck portion which connects the first neck portion with the second neck portion, wherein the first outer diameter is smaller than the second outer diameter, the deflection yoke is arranged in a transitional region between the funnel portion and the first neck portion and the convergence yoke is arranged to over the second neck portion and the third neck portion (Fig 1).

But Hirota et al. fail to disclose magnets as claimed in claim 1.

However, Tagami et al. disclose first magnets (651 and 652 of Fig 2), which have different polarities from each other in the horizontal direction are arranged at upper and lower positions of an opening portion of the deflection yoke, and the first magnet arranged at the upper side of the deflection yoke opening portion and the first magnet arranged at the lower side of the deflection yoke opening portion differ in polarity at left and right sides, this type of arrangement of magnets correct the upper and lower pin cushion distortion (paragraph 0043-0045).

Thus, it would have been obvious to one having ordinary skill in the art the time the invention was made to incorporate first magnets, as arranged by Tagami et al. in the device of Hirota et al. since this will reduce the upper pincushion distortion.

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Regarding claim 2, Tagami et al. disclose that the deflection yoke includes a coil support body (frame 610a of Fig 2) which holds and fixes a pair of horizontal deflection coils (620) thereto and the pair of magnets (651 & 652) are mounted and fixed to the coil support body. The same reason for combining art as in claim 1 applies.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. & Tagami et al. as applied to claims 1-2 above, and further in view of Shiro et al. (US 5378961).

Regarding claims 4-5, combined structure of Hirota & Tagami discloses all the limitations of claims 4-5 (see rejection of claims 1-2), except for a second set of magnets arranged in a circumference of the opening portion of the deflection yoke.

However, Shiro et al. discloses magnets (17a, 17b, 17c, 17d) along the circumference of the opening portion of the yoke (see Fig 2A, & Fig 2B), and further teaches that this cross arms right and left magnetic pieces are provided in the opening portion of the deflection yoke in order to correct for right and left pincushion distortion (lines 27-31 of column 1).

Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to introduce second set of magnets, as disclosed by Shiro et al. in the combined structure of Hirota and Tagami, so that upper, lower, as well as right and left pincushion distortion of the beam can be corrected.

***Allowable Subject Matter***

Claims 3 & 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record neither shows nor suggests a projection-type cathode ray tube comprising all the limitations of claims 3 & 6 particularly comprising the limitation of deflection yoke is arranged in a state where a distance between the deflection coils is set to 0.8 mm or less.

***Other Prior Art Cited***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure :Ito et al. (US 6373202); Iwasaki et al. (US 4939415).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Karabi Guharay*  
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Art Unit 2879